Anthropogenic methane emissions drive roughly 30% of the global warming that we experience today. We must reduce methane emissions by about a third to keep the goals of the Paris Agreement within reach. As underscored by the IPCC’s latest Synthesis Report, reducing methane emissions is one of the fastest, most cost-effective ways to immediately slow the current rate of warming as we decarbonize.

The third edition of UNEP’s International Methane Emission Observatory (IMEO) publication, An Eye on Methane: The Road to Radical Transparency, takes stock of progress harnessing an imminent data revolution that can accelerate methane reduction on a global scale.

This data has the potential to deliver the radical transparency needed for rapid climate action, but only if reconciled, integrated, and put in the hands of those who can act on it.

UNEP’s IMEO sits at the core of this mission and exists to provide open, reliable, and actionable data to individuals with the power to reduce methane emissions.

AS THE GLOBAL METHANE PLEDGE DRIVES MOMENTUM, THE WORLD HAS A CRITICAL OPPORTUNITY TO TAKE METHANE ACTION.

► Roughly 45% of global anthropogenic methane emissions can be addressed with technology available today, often at little to no net cost, including roughly 75% of fossil fuel sector methane.

► The world is mobilizing to tackle this problem with over 150 countries committed to the Global Methane Pledge convened by the U.S. government and European Union. It aims to reduce global methane emissions 30% by 2030.

► UNEP’s IMEO is a core implementing partner of the Global Methane Pledge providing the data needed to enable emission reductions at the scale and speed required.

► Methane reductions must take place within the efforts to keep warming below 1.5 degrees. UNEP promotes a rapid transition away from fossil fuels but recognizes the importance of curbing methane during that transition.
UNEP’S IMEO IS HARNESSING A METHANE DATA REVOLUTION.

► Rapid growth in global emissions monitoring and heightened global attention are creating an unprecedented level of methane transparency. This data is critical for closing the emissions gap by better focusing mitigation efforts and tracking progress over time.

► UNEP is supporting this methane data revolution by making open, reliable, and actionable data available to those who have the agency to reduce emissions.

► To date, UNEP’s IMEO has initiated 34 scientific studies across the globe that have yielded 24 peer-reviewed papers either published or submitted. This research is delivering critical insights on where emissions are coming from and what methods are needed to reduce them.

► UNEP’s IMEO’s scientific research has expanded to all five sectors responsible for human-caused methane – oil and gas, coal, waste, rice and livestock. A series of baseline studies will improve understanding of key methane emission sources from different sectors across selected countries.

EMPIRICAL DATA ENABLE TRANSPARENCY AND ACTION AT SCALE.

► Data alone is insufficient to address the world’s methane challenge – we need it to drive concrete action. And UNEP’s IMEO continues to build up the analytical infrastructure needed to accelerate global methane action at scale as the UNEP-convened Climate and Clean Air Coalition (CCAC) supports strengthened planning and policy development.

► UNEP’s Methane Alert and Response System (MARS) is now fully operational and providing policy-relevant satellite data to the companies and governments that can cut emissions and deliver on the Global Methane Pledge.

► In its pilot phase, MARS notified stakeholders of 127 major methane plumes across four continents. As the program scales up, it will continue to connect governments and companies with near-real-time data to act on large methane emissions.

► The Oil and Gas Methane Partnership (OGMP 2.0) is UNEP’s flagship oil and gas reporting and mitigation programme, and plays a critical role in engaging companies within a protocol that drives emissions reductions through transparency and empirical data.

► OGMP 2.0 is the only comprehensive measurement-based reporting framework for the sector. Over 115 companies from more than 60 countries have joined OGMP 2.0 and they collectively account for nearly 40% of global oil and gas production.

► In 2022 the quality of methane reporting from OGMP 2.0 member companies grew, as they evolve from estimates to empirical measurements for each asset. However, significant data gaps remain which companies will need to bridge as they pursue OGMP 2.0’s Gold Standard reporting.

► UNEP’s IMEO’s efforts to build the capacity of governments and regulators to leverage methane data and drive climate progress have trained over 650 individuals across 25 countries.